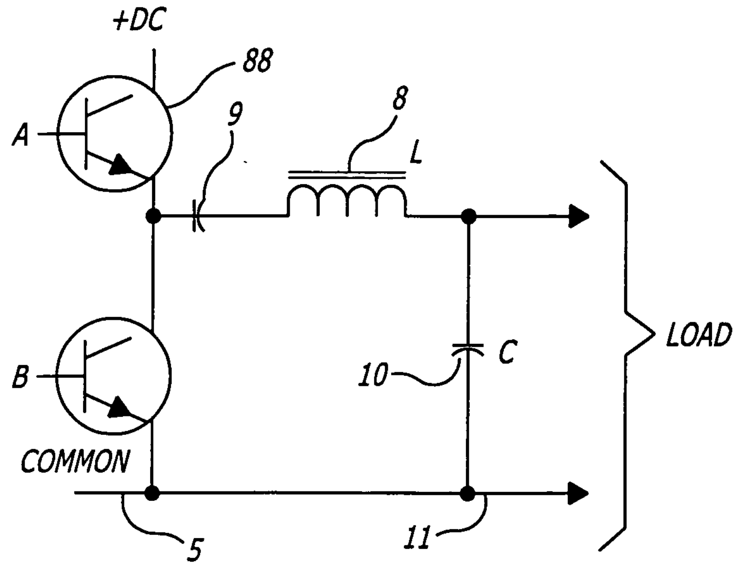


FIG. 1
PRIOR ART

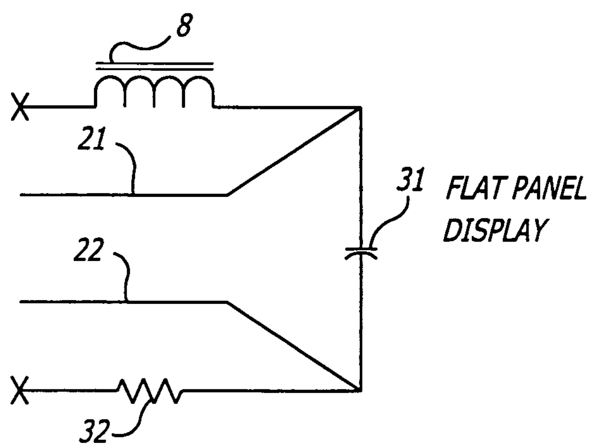


FIG. 3

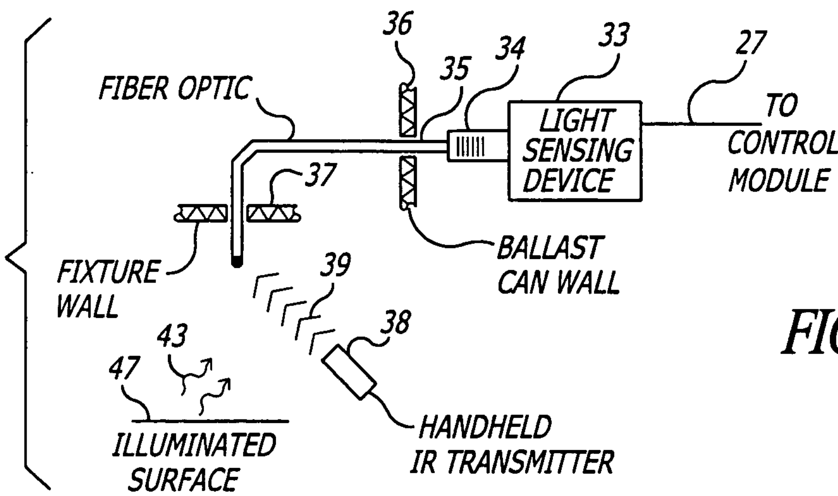
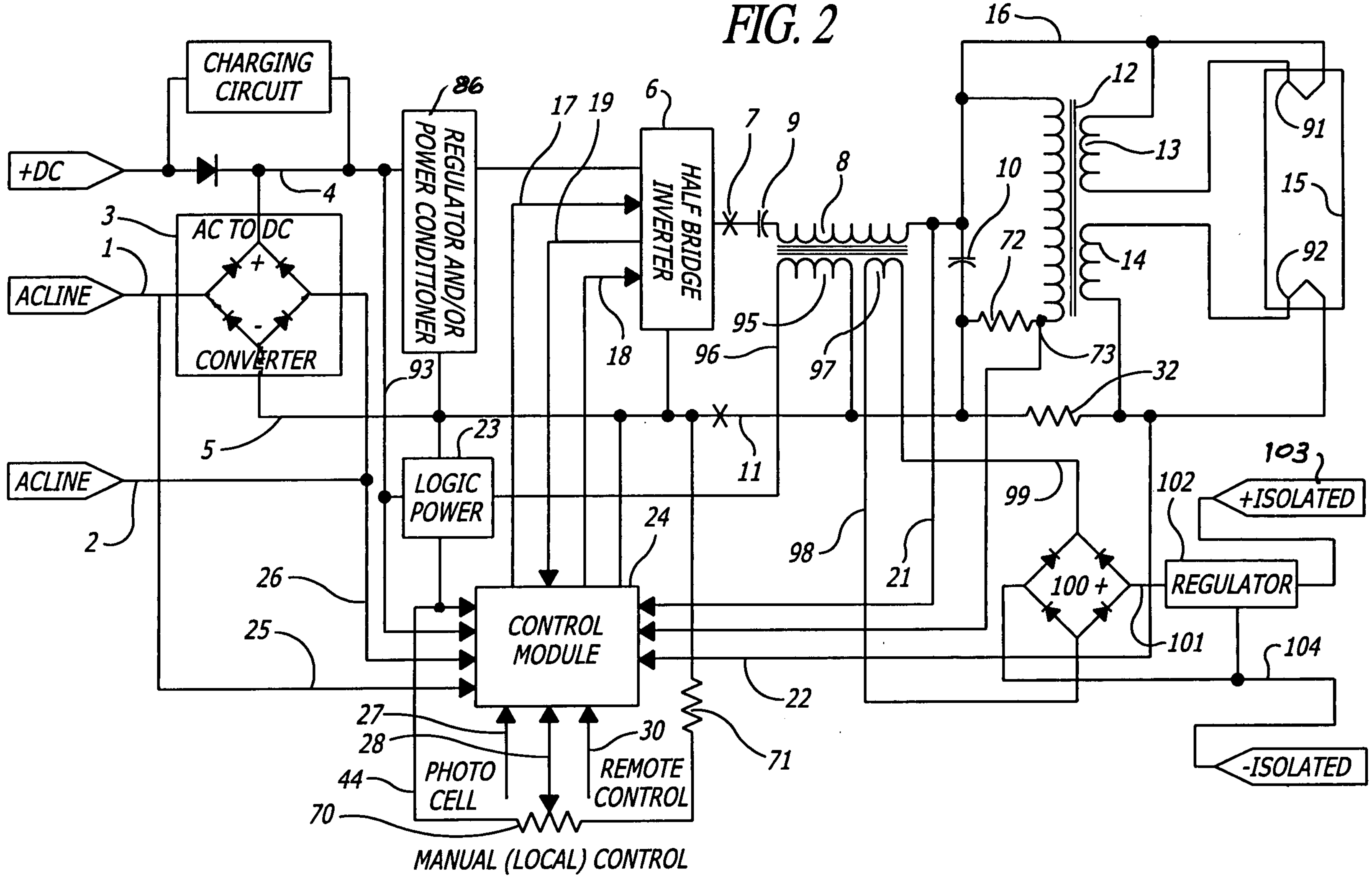


FIG. 5

FIG. 2



+DC
ACLINE
ACLINE
CHARGING CIRCUIT
AC TO DC CONVERTER
REGULATOR AND/OR POWER CONDITIONER
HALF BRIDGE INVERTER
LOGIC POWER
CONTROL MODULE
PHOTO CELL
REMOTE CONTROL
MANUAL (LOCAL) CONTROL
REGULATOR
+ISOLATED
-ISOLATED
100 +
1
2
3
4
5
6
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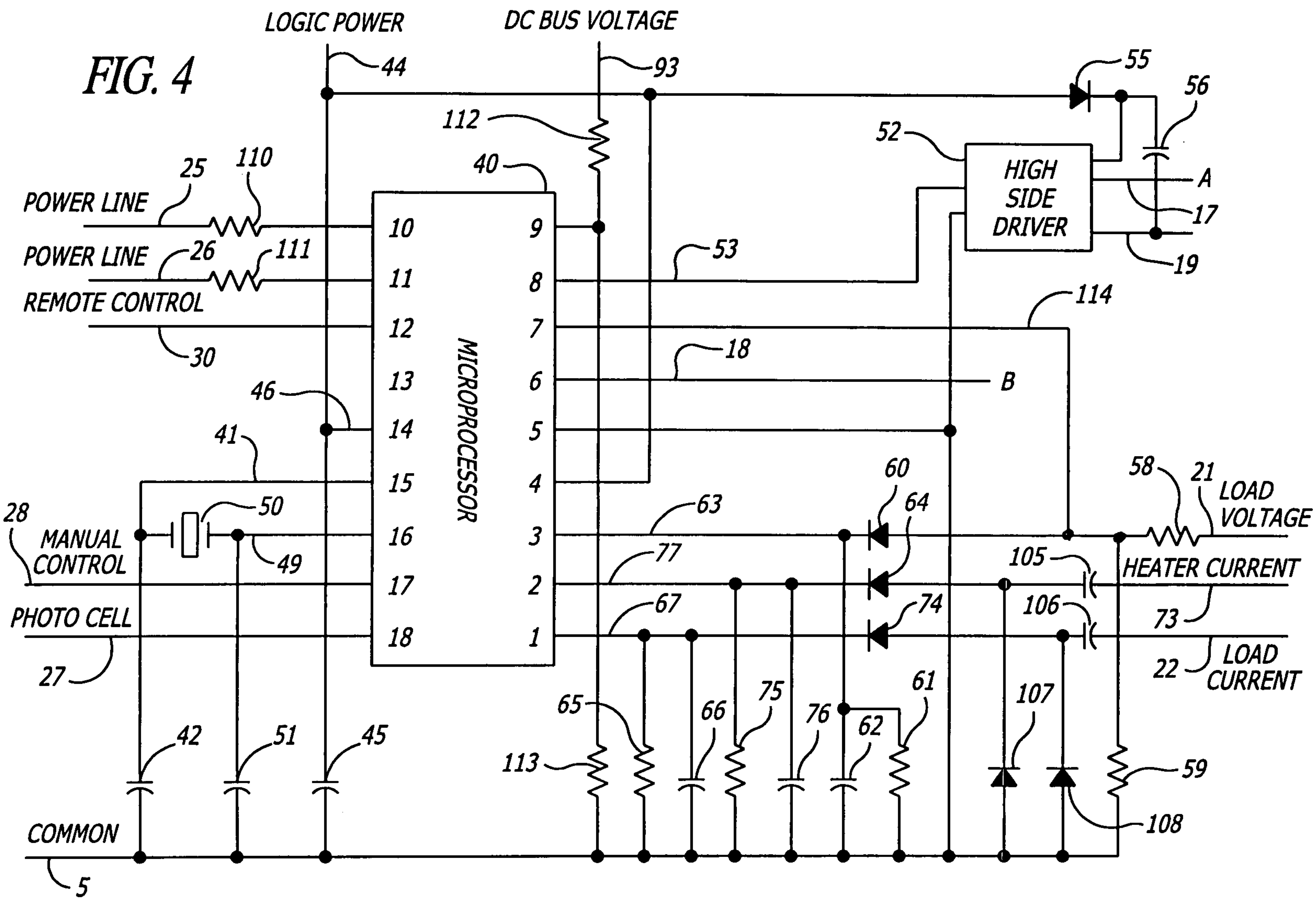
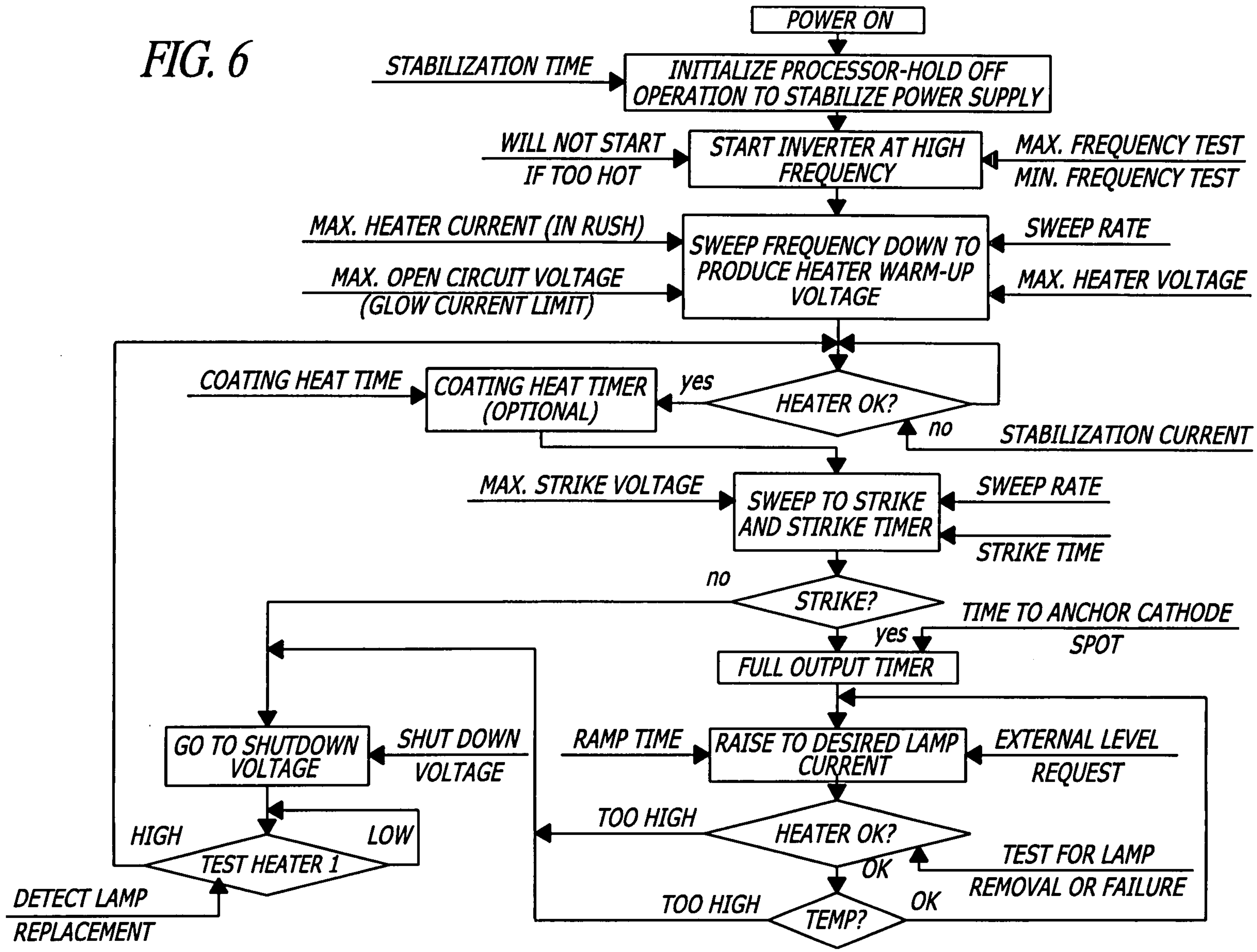
FIG. 4



LOGIC POWER
DC BUS VOLTAGE
44
93
55
56
112
52
HIGH
SIDE
DRIVER
A
17
19
40
25
110
POWER LINE
POWER LINE
26
111
REMOTE CONTROL
30
MICROPROCESSOR
10
11
12
13
14
15
16
17
18
9
8
7
6
5
4
3
2
1
53
114
18
B
46
41
60
64
63
58
21
LOAD
VOLTAGE
28
MANUAL
CONTROL
50
49
77
105
HEATER CURRENT
67
74
106
73
PHOTO CELL
27
22
LOAD
CURRENT
65
66
75
76
61
62
107
42
51
45
113
59
108
COMMON
5

FIG. 6


POWER ON
STABILIZATION TIME
INITIALIZE PROCESSOR-HOLD OFF OPERATION TO STABILIZE POWER SUPPLY
WILL NOT START IF TOO HOT
START INVERTER AT HIGH FREQUENCY
MAX. FREQUENCY TEST
MIN. FREQUENCY TEST
MAX. HEATER CURRENT (IN RUSH)
MAX. OPEN CIRCUIT VOLTAGE (GLOW CURRENT LIMIT)
SWEEP FREQUENCY DOWN TO PRODUCE HEATER WARM-UP VOLTAGE
SWEEP RATE
MAX. HEATER VOLTAGE
COATING HEAT TIME
COATING HEAT TIMER (OPTIONAL)
yes
HEATER OK?
no
STABILIZATION CURRENT
MAX. STRIKE VOLTAGE
SWEEP TO STRIKE AND STIRIKE TIMER
SWEEP RATE
STRIKE TIME
no
STRIKE?
yes
TIME TO ANCHOR CATHODE SPOT
FULL OUTPUT TIMER
GO TO SHUTDOWN VOLTAGE
SHUT DOWN VOLTAGE
RAMP TIME
RAISE TO DESIRED LAMP CURRENT
EXTERNAL LEVEL REQUEST
HIGH
TEST HEATER 1
LOW
TOO HIGH
HEATER OK?
OK
TEST FOR LAMP REMOVAL OR FAILURE
DETECT LAMP REPLACEMENT
TOO HIGH
TEMP?
OK